



# COMPUTER TOOLS

for Planning,  
Conservation &  
Environmental Protection

Article 6

In an effort to increase awareness of Internet resources available to local governments and citizen planners the Wisconsin Department of Natural Resources (DNR) has initiated a technical assistance program focused on computer tools for planning, conservation, and environmental protection. This program has been made possible by a water quality management grant awarded to the DNR by the U.S. Environmental Protection Agency (EPA).

As part of our technical assistance program we have developed this series of articles. **Each article will highlight a different tool, discuss its possible uses, and offer step-by-step tutorials.** It is our hope that the information provided here will insure that all involved in local planning processes have equal access to valuable information and analysis tools. Gaining access to these free web-based planning tools will assist communities with preliminary selection of alternative approaches to watershed and community planning. When community planners, developers, and citizens have access to similar information they are more readily able to interact and jointly discover possible solutions to land use issues.

This series of articles can be found online at <http://dnr.wi.gov/org/es/science/landuse/CompTools/local.htm>

## Definition of a Tool – Interactive Mapping

To help evaluate the available tools, we have sorted them into three categories-data access, interactive mapping, and predictive modeling. The first article in this series covered the data access tool, Window to My Environment. This second article focuses on interactive mapping tools.

The development and availability of web-mapping software in the late 1990s spawned a proliferation of Internet sites that enable citizens to access government-maintained data and information useful in local environmental protection and planning. The resulting interactive data mapping tools allow people to access downloadable data, integrate that data spatially, zoom-in on areas of interest, query the associated databases, search for selected data, and produce customizable maps. Since the mapping tools are data driven, they access “real time” data and ensure the most current information is used (i.e. as the data and databases used to create the maps are updated and change, so do the maps).

Maps add a visual element to the planning process and can be an effective way to communicate consequences of land use decisions. Such tools enhance community participation when people can see potential changes in relation to where they live.

## EnviroMapper for Water

EnviroMapper for Water is a web-based mapping interface to U.S. Environmental Protection Agency (EPA) geospatial data including the National Hydrography Dataset (NHD) and other water program data.

More specifically, EnviroMapper for Water allows users to view different sets of map feature layers at national, regional, state, and local levels. It enables user control of the map including the display of multiple feature layers, identifying and labeling features, zooming, panning, and showing descriptive information (latitude and longitude coordinates, watershed, ecoregion, state, county) for a specific location. It allows dynamic querying of databases that contain detailed information about individual map features, such as “impaired” waters.

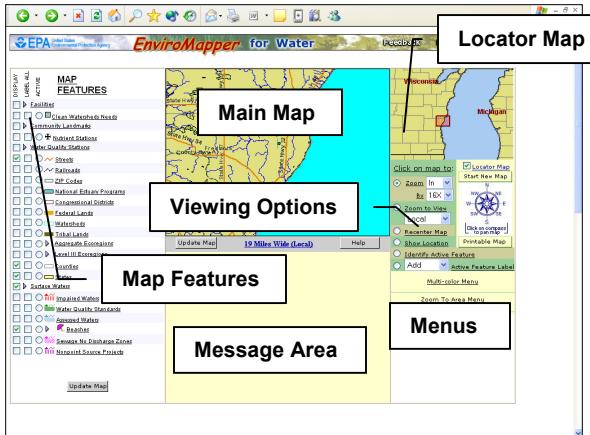
## EnviroMapper for Water enables users to view and map data, such as:

- ✓ uses assigned to local waters by your state (e.g., fishing or swimming).
- ✓ waters that are impaired and do not support their assigned uses.
- ✓ reasons why waters are impaired (the causes and sources of pollution in impaired waters).
- ✓ water quality monitoring information.
- ✓ closures of swimming beaches.
- ✓ locations of dischargers to water.

## To Use EnviroMapper

Using your Internet browser, go to  
<http://map8.epa.gov/enviromapper>

# EnviroMapper for Water



**Main Map** - primary map display

**Message Area** - displays textual results of various map controls

**Locator Map** - reference map of area surrounding the Main Map area

**Map Features (Legend)** allow you to:

- Select a specific feature layer for display
- Label all features in a specific feature layer
- Make a specific feature layer active
- Update map with the selected feature layers

**Viewing Options** allow you to:

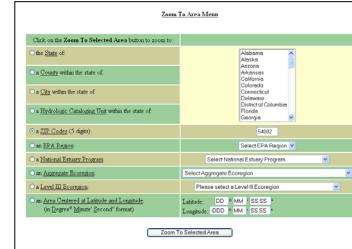
- Zoom, pan, and recenter the map
- Show the latitude-longitude coordinate and other geographic attributes for a specific location on the map
- Identify a specific map feature
- Label a specific map feature
- Start a new map
- Display the locator map
- Display a printable map, and print it

**Menus** allow you to:

- Use multiple colors to differentiate individual features for certain water programs using the "Multi-color Menu."
- Zoom to a specific state, county, city, hydrologic cataloging unit (watershed), ZIP code, EPA region, ecoregion, EPA National Estuary Program, or latitude-longitude using the "Zoom To Area Menu."

## Example Use

1. Scroll down to the "Zoom to Area" menu below the map.



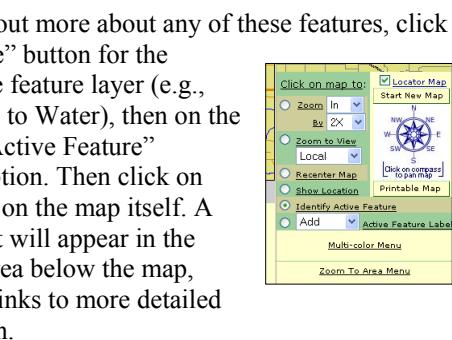
2. Click on the "Zip Codes" button and then type your zip code in the box to the right (on the same line).

3. Scroll down and click <Zoom to Selected Area> to pull up a map of your zip code.

4. Check the Map Features you want to see displayed or labeled (such as impaired waters, watershed boundaries, or facilities).



5. Click <Update Map> to display your desired features on the map.



## For More Information:

[www.dnr.state.wi.us/org/es/science/landuse](http://www.dnr.state.wi.us/org/es/science/landuse)  
WDNR's land use website



Article prepared by R. Chris Welch  
Wisconsin Department of Natural Resources  
Bureau of Integrated Science Services  
[robert.welch@dnr.state.wi.us](mailto:robert.welch@dnr.state.wi.us)

